## Claims: What is claimed is:

- 1. A fixed wireless network extender comprises:
  - (a) a processor unit where CPU running system software and networking software.
  - (b) two system buses to which wireless and wired networking unit can be attached to
  - (c) a control unit monitors and controls the performance of the radio units
  - (d) plurality of wireless networking radio units
  - (e) plurality wired networking units to connect to wired network
    - 2. The processor unit of claim 1 is the system platform as well as networking functionality platform, so that network packets are exchanged among the wireless and wired interfaces.
    - 3. The number and type of the said wireless networking radio units of Claim 1 can be selected and installed to fit different networking application, so that to configure the fixed wireless network extender.
      - 4. The wireless networking radio units of Claim 3 are the same types of radio working at different channel.
      - 5. The wireless networking radio units of Claim 3 are totally different types of wireless networking radio.
      - 6. The wireless networking radio units of Claim3 are same type of radio isolated by fixed directional antenna, thereby no interference among them.
    - 7. The radio control units of claim1 are an optional units when radio units need outside hardware controls, said radio control unit may be omitted when the

networking device of claim 1 is configured with all the radio units that do not apply additional performance control.

- 8. The wireless networking radio units of claim 1 may be built on the same PCB, and configure the device by turn on and off each unit.
- 9. The wired networking units of claim 1 may be built on the same PCB, and configure the device by turn on and off each units.